# MATHEMATICS **A Level**



## Why Study this course?

- You really find Mathematics an interesting and you are willing to work hard to make progress both inside and outside of lessons.
- You want to be challenged and stretched by studying more difficult topics than those found at GCSE.
- You have a logical mind and want to develop your reasoning abilities.
- You are planning to study either Mathematics or a related degree at University.



## **Career Progression**

- Mathematics is a versatile qualification that is well-respected by employers and facilitates entry for higher education.
- Employers highly value Mathematics qualifications as mathematics students become better at thinking logically and analytically.
- For progress to many courses at University it is important to have strong mathematical skills. For most Science, Technology, Engineering and Mathematics (STEM) degree courses A Level Mathematics is required.

## What You'll Study

#### Year 1:

Pure Mathematics Proof, Algebra and Functions, Coordinate geometry in the x/y plane, Sequences and Series, Trigonometry, Exponentials and Logarithms, Differentiation, Integration and Vectors.

Section A: Statistics Statistical Sampling, Data presentation and Interpretation, Probability, Statistical distribution and Statistical Hypothesis Testing.

Section B: Mechanics Quantities and units in Mechanics, Kinematics and Forces and Newton's Laws.

#### Year 2:

Proof, Algebra and Functions, Coordinate geometry in the x/y plane, Sequences and Series, Trigonometry, Exponentials and Series, Differentiation, Integration, Numerical Methods and Vectors.

(Paper 3) Section A: Statistics Statistical Sampling, Data Presentation and Interpretation, Probability, Statistical distributions and Statistical Hypothesis Testing.

(Paper 3) Section B: Mechanics Quantities and units in Mechanics, Kinematics, Forces and Newton's Laws and Moments.



To find out more you can visit our website: www.parrswood.manchester.sch.uk/sixthform

#### Why I chose Mathematics

"I am now studying Psychology at Rollins College in Orlando, Florida. Maths helped me because I am at liberals arts school. There is a Math requirement. I took an Algebra class and it was a breeze.

Maths also helped me because it improved my ability to work at something with the knowledge that it will eventually 'click'. Perseverance is key. I picked Maths because A level maths is valued highly by employers and looks great on a uni application. I enjoyed the course because it was challenging but satisfying. You are always mastering mathematical techniques while learning new ones. I would recommend the course to others because the teachers are friendly and always willing to help. It is a great classroom environment." - Ben

If you like this subject, you may also like:

Physics, Chemistry, Computer Science, ICT

### Why Parrs Wood?

Our students regularly compete in the UKMT Senior Individual and Senior Team challenges. Students can attend a UKMT club where they are trained to apply their knowledge to questions asked in different contexts. We have had pupils achieve very high results and being invited to sit the Senior Kangaroo, invite only, Maths challenge. We also offer a trip to the annual North West Maths Inspiration Lectures held at the RNCM. For those students who are aiming at achieving the highest grades we offer extra support to prepare them for the STEP examinations (required by some universities) and for Maths interviews at universities.



#### PARRS WOOD SIXTH FORM

Wilmslow Road, East Didsbury Manchester, M20 5PG t: 0161 446 8648 e: m.tracy@parrswood.manchester.sch.uk

To find out more you can visit our website: www.parrswood.manchester.sch.uk/sixthform